week course of preemptive treatment with ganciclovir for pts at low risk for CMV disease or prolonged reactivation.

Table 1. Demographics of all recipients of HCT from an HLA matched sibling donor following a myeloablative preparative regimen between 1996 and 2008

	N = (%)	Pts with reactivation only (no evidence disease)	GCV treatment* 3wks	GCV treatment* 6wks
Total patients at risk	287(100)	83(29)	40(14)	43(13)
D+/R+	182(63)	55(30)	27(15)	28(15)
D+/R-	43(15)	3(7)	1(2)	2(5)
D-/R+	62(22)	25(40)	12(19)	13(21)
TBI	146(49)	39(47)	17(43)	22(51)
prophylactic steroids	122(42)	28(34)	17(43)	11(26)
**Treatment of GVHD **	100(34)	26(31)	12(30)	14(33)
steroid 2 mg/kg	42(15)	10(12)	3(8)	7(16)
steroid 1 mg/kg	58(20)	16(19)	9(23)	7(16)
Median creatinine	NA	NA	1.1	1.3
median first PCR	NA	NA	940	1300
median maximum PCR	NA	NA	1300	4400

*IV ganciclovir
** at time of first detected viremia.

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A PROSPECTIVE COMPARISON OF OUTCOMES AND RESOURCE UTILIZATION IN PATIENTS WITH MYELOID MALIGNANCIES UNDERGOING ALLOGENEIC HEMATOPOIETIC CELL TRANSPLANTATION (ALLOHCT) USING MYELOABLATIVE OR REDUCED INTENSITY CONDITIONING

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We conducted a prospective study to compare outcomes, resource utilization and quality of life (QOL) in patients with myeloid malignancies undergoing alloHCT using myeloablatove (MY) or reduced intensity conditioning (RIC). (QOL data submitted separately).

Patients with myeloid malignancies with a suitable matched related or unrelated donor, fit to undergo alloHCT using MY or RIC were eligible for this study. The study was non-randomized and primarily designed to determine whether RIC was as effective as MY for the treatment of myeloid malignancies. The selection of MY or RIC regimen was at the discretion of the treating physician. The primary end point was leukemia-free survival (LFS) at 1-year. Secondary end points were non-relapse mortality (NRM), relapse, overall survival (OS), resource utilization and QOL. Patients were enrolled from Jan 2005 to Sep 2008. Of the 118 eligible patients, 115 (MY 51; RIC 64) consented to participate. The outcomes and resource utilization data were collected at day30, day100, day180 and day365.

Transplant indications included: AML, 83; MDS, 16; and other myeloid malignancies,16. 87 patients were of high and 28 of standard risk. Apart from age, both study cohorts were well matched for baseline patient, disease and transplant related characteristics. The median age of patients undergoing RIC was significantly higher than those undergoing MY regimens (59 vs. 41 yrs, $p < 0.0001$).

By univariate analysis, there were no differences in the RIC and MY cohorts for 1-year LFS (53% vs. 58%, $p = 0.60$) and OS (61% vs. 58%, $p = 0.82$). The outcomes were similar in multivariate analysis with LFS (HR 0.82, $p = 0.61$) and OS (HR 0.79, $p = 0.55$). No significant differences were observed in the cumulative risk of NRM or relapse at 1-year. Disease risk stratification was the only significant factor for LFS (HR for standard risk 0.42, $p = 0.02$) and OS (HR 0.34, $p = 0.008$).

Medical resources utilization was similar during the first 100 days. From day 100 to day 365, the RIC cohort required a significantly higher number of in-patient hospital days ($p < 0.001$), higher number of outpatient visits ($p < 0.0001$) and a higher number of platelet transfusions ($p < 0.0001$).

We conclude that disease biology rather than intensity of the conditioning therapy is major determinant of outcomes of alloHCT in patients with myeloid malignancies. The utilization of medical resources is higher after 100 days in the patients undergoing RIC. Long-term follow up of this study is in progress.

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KIR HAPLOTYPE MAY INFLUENCE CLINICAL OUTCOME FOLLOWING HLA-MATCHED SIBLING HAEMOPOIETIC STEM CELL TRANSPLANTATION

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Natural killer cell alloreactivity due to Killer cell Immunoglobulin-like Receptors (KIR) repertoire has been reported to be advantageous in haploidentical allogeneic haemopoietic stem cell transplants (HSCT). Benefits include superior survival, reduced relapse and graft versus host disease particularly in patients transplanted for Acute Myeloid Leukaemia (AML). However data from HLA-matched sibling HSCT are inconsistent and recently other models have been proposed to measure NK alloreactivity including the missing ligand and KIR haplotype models.

We examined the association between KIR haplotype, relapse, overall survival and acute graft versus host disease (aGvHD) in a cohort of 147 HLA matched siblings undergoing HSCT. KIR genotyping was by multiplex PCR-SSP and haplotypes were categorised as the A haplotype carrying the 2DL1, 2DL3, 3DL1, 2DS4 and framework genes, all other combinations were denoted the B haplotype. Combinations of KIR haplotype were assigned to each transplant according to the donor and then recipient haplotype ie AA-AA, AA-Bx, Bx-AA and Bx-Bx where Bx denotes either BB or BA.

In the entire cohort relapse, overall survival and aGvHD were not significantly associated with donor and recipient KIR haplotype. However when only AML patients (n = 69) were considered AA donors-Bx recipients had superior survival rates and those with AA-AA the most inferior. Interestingly this was also true for grades II-IV aGvHD, with AA-Bx having no aGvHD and AA-AA the most ($p = 0.032$). Furthermore, when stratified to only include AML patients receiving myeloablative conditioning, an AA donor-AA recipient had inferior overall survival ($p = 0.015$) and the most severe aGvHD ($p = 0.054$).

KIR haplotype may influence the clinical outcome of HLA-matched sibling HSCT, particularly in patients treated for Acute Myeloid Leukaemia that had received myeloablative conditioning.

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UNMANIPULATED HLA-MISMATCHED/HAPLOIDENTICAL BLOOD AND MARROW HEMATOPOIETIC STEM CELL TRANSPLANTATION

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A novel approach to HLA mismatched/haploidentical blood and marrow hematopoietic stem cell transplantation.

Peking University researchers developed a novel approach to HLA-mismatched/haploidentical transplantation without *in vitro* T cell depletion. More than 831 cases of haploidentical transplantation have been fulfilled and the promising results have been achieved.

Engraftment: Huang et al reported 171 patients underwent transplantation with this protocol, all patients achieved hematopoietic recovery. There was no significant association between the extent of HLA disparity and the time of myeloid or platelet recovry.

Multivariate analysis indicated that the number of CD34+ cells ($<2.19 \times 106$/kg) in allografts, and advanced disease stage were